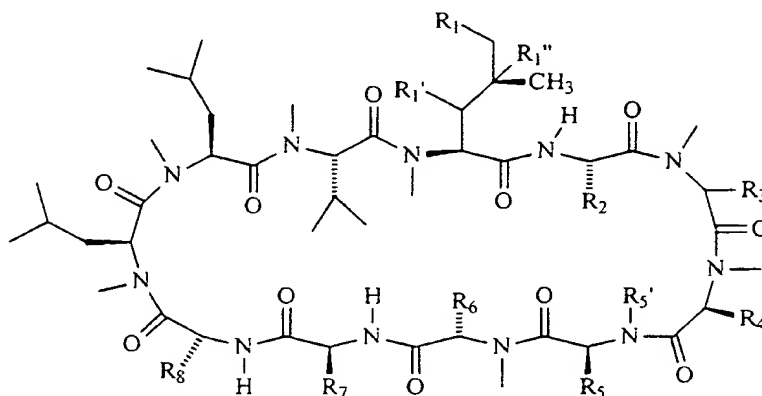


What is claimed is:

1. A method of treating hair loss characterized by administering to a mammal a composition characterized by a non-immunosuppressive compound having the structure:



and pharmaceutically acceptable salts, hydrates, and biohydrolyzable amides, esters, and imides thereof. wherein:

- (a) R_1 is selected from the group consisting of 1-propenyl, propyl, 3-hydroxy-1-propenyl, -O-methyl, -O-*p*-benzoyl benzyl, and hydroxy;
- (b) R_1' is selected from the group consisting of hydroxy, oxo, and acyloxy;
- (c) R_1'' is selected from the group consisting of hydrogen and methyl;
- (d) R_2 is selected from the group consisting of ethyl, *n*-butyl, 2-hydroxypropyl, 2-methoxypropyl, 1-methylpropyl, and 2-acyloxy-propyl;
- (e) R_3 is selected from the group consisting of hydrogen, methyl, benzyl, 1-propenyl, and 2-methyl-3-hydroxy-propyl;
- (f) R_4 is substituted or unsubstituted $C_1 - C_9$ straight or branched alkyl;
- (g) R_5 is substituted or unsubstituted $C_1 - C_6$ straight or branched alkyl;
- (h) R_5' is selected from the group consisting of hydrogen, methyl, benzyl, *p*-fluorobenzyl, 1-propenyl, and 1-phenyl-1-propenyl;
- (i) R_6 is selected from the group consisting of 2-methylpropyl, 2-methyl-3-hydroxypropyl, methyl, and ethyl;
- (j) R_7 is selected from the group consisting of methyl and phenyl; and
- (k) R_8 is selected from the group consisting of methyl and hydroxymethyl.

2. A method according to Claim 1 wherein:

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- (a) R_1' is selected from the group consisting of hydroxy and oxo;
- (b) R_1'' is hydrogen;
- (c) R_2 is selected from the group consisting of ethyl, *n*-butyl, 2-hydroxypropyl, and 2-methoxypropyl; and
- (d) R_3 is selected from the group consisting of hydrogen, methyl, and benzyl.
3. A method according to any of the preceding claims wherein:
- (a) R_4 is selected from the group consisting of 2-methylpropyl, 2-methyl-3-hydroxypropyl, 2-methylbutyl, *iso*-propyl, 2-hydroxypropyl, and methyl;
- (b) R_5 is selected from the group consisting of 2-methylpropyl, *n*-butyl, and *iso*-propyl; and
- (c) R_5' is selected from the group consisting of hydrogen, methyl, and 1-propenyl.
4. A method according to any of the preceding claims wherein R_2 is ethyl and R_3 is selected from the group consisting of hydrogen and benzyl.
5. A method according to any of the preceding claims wherein R_5' is selected from the group consisting of hydrogen and 1-propenyl and R_4 is 2-methylpropyl.
6. A method according to any of the preceding claims wherein R_5 is *iso*-propyl and R_6 is 2-methylpropyl.
7. A method according to any of the preceding claims wherein R_7 is methyl and R_8 is methyl.
8. A method according to Claim 11 wherein R_1 is 1-propenyl and R_1' is oxo.
9. A method according to any of the preceding claims wherein the administration is topical.
10. A composition useful for treating hair loss comprising a non-immunosuppressive compound according to any of the preceding claims and a second compound selected from the group consisting of minoxidil and finasteride.

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SUB
A 1